FAMILY OF SIX-SPEED DUAL-CLUTCH TRANSMISSIONS HAVING THREE PLANETARY GEAR SETS

ABSTRACT OF THE DISCLOSURE

The family of transmissions has a plurality of members that can be utilized in powertrains to provide at least six forward speed ratios and one reverse speed ratio. The transmission family members include three planetary gear sets, two input clutches, nine, ten or eleven torque transmitting mechanisms and a fixed interconnection. The invention provides a low content multi-speed dual clutch transmission mechanism wherein the two input clutches alternately connect the engine to realize odd and even number speed ratio ranges. The torque transmitting mechanisms provide connections between various gear members, the fixed interconnection, the input clutches, the output shaft, and the transmission housing, and are operated in combinations of at least three to establish at least five forward speed ratios and at least one reverse speed ratio.